ABSTRACT OF THE DISCLOSURE

A switching regulator circuit for controlling power supplied to a load, includes: a switching device for repeatedly going on or off to control a voltage or a current applied to the load; a detector for detecting a supply voltage or a supply current supplied to the load; and a controller for controlling a duration ratio of a period in which the switching device is on or off based on the supply voltage or supply current detected by the detector, so as to control a value of the voltage applied to the load. The controller includes: a saw-tooth wave generation unit for charging and discharging a saw-tooth wave generation capacitor grounded at one end so as to change a voltage at another end of the saw-tooth wave generation capacitor like a saw-tooth wave; a charge/discharge controller for changing a ratio of a charge rate and a discharge rate of the saw-tooth wave generation capacitor based on the supply voltage or supply current detected by the detector; and a switching device controller for comparing a voltage value of the saw-tooth wave generation capacitor with a predetermined threshold value and controlling the duration ratio of the period in which the switching device is on or off based on the comparison result.